

ABSTRACT

Provided is a self-cleaning catalytic chemical vapor deposition apparatus which suppresses the corrosion-induced degradation of a catalytic body by a cleaning gas without heating a catalytic body to not less than 2000°C and permits practical cleaning rates and good cleaning at low cost. With conductors 5a, 5b which supply a constant current to a catalytic body 4 within a reaction chamber 2 from a heating power supply 6 and terminals 6a, 6b of the heating power supply 6 kept electrically insulated from the reaction chamber 2, a cleaning gas containing halogen elements is introduced into the reaction chamber 2 which has been evacuated, and the catalytic body 4 is heated by the energization from the heating power supply 6. An active species generated by this heating is caused to react with an adhering film which adheres to the interior of the reaction chamber 2, whereby the adhering film is removed. During this removal of the adhering film, a DC bias voltage having an appropriate polarity and an appropriate value is applied from a constant-voltage power supply 8 to the conductor 5b of the heating power supply 6.